

**Amendments to the Claims:**

Claims 1, 5, and 6 have been amended herein. Please note that all claims currently pending and under consideration in the referenced application are shown below. Please enter these claims as amended. This listing of claims will replace all prior versions and listings of claims in the application.

**Listing of Claims:**

1. (Currently amended) A method for printing a pattern on a medium, the method comprising:

assigning a pattern to a medium, wherein the pattern defines coordinates of a portion of the medium;

applying a fixer to the portion of the medium in the pattern; and

applying an ink to a ~~different~~ a portion of the medium not having fixer.

2. (Original) The method according to claim 1, further comprising:

designing a layout of a document;

preparing an image of the layout of the document for printing; and

applying ink to the medium to form the image.

3. (Original) The method according to claim 2, wherein the step of applying the fixer to the medium is done before applying the ink to the medium.

4. (Original) The method according to claim 2, wherein the step of applying the ink to the medium is done before applying the fixer to the medium.

5. (Currently amended) ~~The method according to claim 1, further comprising:~~  
A method for printing a pattern on a medium, the method comprising:  
assigning a pattern to a medium, wherein the pattern defines coordinates of a portion of the  
medium;  
applying a fixer to the portion of the medium in the pattern;

applying an ink to a different portion of the medium; and  
mixing an infrared marker or an ultraviolet marker with the fixer.

6. (Currently amended) ~~The method according to claim 1~~  
A method for printing a pattern on a medium, the method comprising:  
assigning a pattern to a medium, wherein the pattern defines coordinates of a portion of the  
medium;  
applying a fixer to the portion of the medium in the pattern; and  
applying an ink to a different portion of the medium, wherein the fixer is capable of  
fluorescing or acting as an attenuating filter of fluorescence when exposed to a predetermined  
wavelength of electromagnetic radiation.

7. (Original) The method according to claim 2, further comprising:  
assigning a 1-bit plane of data to the image, wherein the 1-bit plane of data corresponds to the  
pattern.

8. (Original) The method according to claim 2, wherein preparing the image of  
the layout of the document for printing comprises configuring software associated with a  
computer to prepare the image of the layout of the document for printing.

9. (Original) The method according to claim 2, wherein preparing the image of  
the layout of the document for printing comprises configuring firmware to prepare the image  
of the layout of the document for printing.

10. (Withdrawn) A method for calculating a position of an object in relation to a  
medium, the method comprising:  
applying a coordinate pattern to a medium, wherein the coordinate pattern comprises a fixer  
capable of fluorescing when subjected to a predetermined wavelength of  
electromagnetic radiation;  
projecting the predetermined wavelength onto the pattern;  
detecting a presence or an absence of emittance from the fixer in the coordinate pattern on the

medium excited by the wavelength; and  
responsive to the presence or the absence of the emittance, calculating a position of the object  
in relation to the medium.

11. (Withdrawn) The method according to claim 10, wherein calculating the  
position of the object in relation to the medium comprises calculating a position of a writing  
instrument in relation to the medium.

12. (Withdrawn) The method according to claim 10, further comprising:  
designing a layout of a document;  
preparing an image of the document for printing; and  
applying ink to the medium to form the image.

13. (Withdrawn) The method according to claim 10, wherein projecting the  
predetermined wavelength of electromagnetic radiation onto the pattern comprises directing  
an ultraviolet or an infrared wavelength onto the pattern.

14. (Withdrawn) The method according to claim 10, wherein detecting the  
presence or the absence of the emittance from the fixer in the coordinate pattern comprises  
positioning a sensor in relation to the coordinate pattern such that the sensor collects the  
presence or the absence of the emittance from the coordinate pattern.

15. (Withdrawn) The method according to claim 10, further comprising:  
writing on the medium with a writing instrument; and  
electronically storing the position of the writing instrument in relation to the medium.

16. (Withdrawn) The method according to claim 15, wherein writing on the  
medium and electronically storing the position occur substantially simultaneously.

17. (Withdrawn) A medium comprising:  
a substrate; and

a coordinate pattern applied to at least one side of the substrate, wherein the coordinate pattern comprises a means for fluorescing when subjected to a predetermined wavelength of electromagnetic radiation.

18. (Withdrawn) The medium of claim 17, wherein the coordinate pattern is a Cartesian coordinate pattern.

19. (Withdrawn) The medium of claim 17, wherein the means for fluorescing comprises fixer.

20. (Withdrawn) The medium of claim 17, wherein the means for fluorescing further comprises an infrared marker or an ultraviolet marker.

21. (Withdrawn) The medium of claim 17, further comprising an image printed on the at least one side of the substrate.

22. (Withdrawn) The medium of claim 21, wherein the coordinate pattern overlies the image.

23. (Withdrawn) The medium of claim 21, wherein the image overlies the coordinate pattern.

24. (Withdrawn) A system for forming a substantially invisible coordinate pattern on a medium, the system comprising:  
an image-forming device comprising:  
    a first pen for applying visible ink to a medium;  
    a second pen for applying a fixer to the medium, wherein the fixer is applied in a coordinate pattern; and  
a medium comprising the coordinate pattern.

25. (Withdrawn) The system of claim 24, wherein the fixer comprises an

ultraviolet marker or an infrared marker.

26. (Withdrawn) The system of claim 24, further comprising:  
an information recording device for calculating a position of an object in relation to the  
coordinate pattern of the medium.

27. (Withdrawn) The system of claim 26, wherein the information recording  
device comprises:  
a writing instrument for writing on the medium;  
a source of electromagnetic radiation for illuminating the fixer; and  
a sensor array for detecting a presence or an absence of emittance of the fixer.